Flinders UNIVERSITY

The Clinical Communication Program: An innovation in clinical learning for nursing students

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The Clinical Communication Program (CCP) is an online interactive learning program with multiple components to assist in preparing students, including those for who English is not their first language, for clinical practice in the Australian clinical nursing environment.
The program is virtual and accessible by students, academics and clinical facilitators in any location (university, home or clinical setting). The program is interactive, using Adobe Flash Player, sound files, PDF files of current charts used in the health agencies. The program consists of a nursing handover of 16 patients incorporating elements from actual practice scenarios combined with visual and phonic elements. The aim is to increase nursing students knowledge and skill in oral and written communication and therefore to assist them in integrating into the clinical workplace. The ability to chart, to total and to make a judgment about a patient's fluid intake and out put is also included as one of the many activities the CCP covers.

Keywords: Clinical Communication, Nurses, International students

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INTRODUCTION

Effective communication is a key determinant of cohesive team work, clinical decision making and ultimately quality patient outcomes. Deficiencies continue to be identified in both the teaching and implementation of communication skills for nursing students (Jarrett & Payne, 1995). Descriptions of essential communication skills and associated strategies in health care focus on development of active listening, empathy, interviewing skills and counselling skills. Thus, often exclude day to day interactions with professionals and documentation required to develop knowledge of patients and an efficient, integrated nursing workforce.

An ever-increasing dilemma in nursing education is to prepare students for the reality of clinical practice. Preparation for professional practice requires activities which are the same as those experienced in practice, replication of the context of practice and repetition. What is required are diverse teaching and learning approaches to facilitate the development of mental representations of current clinical situations. Although nursing students' state they learn best by experiential learning and interaction with real patients in the clinical environment (Rakoczy & Movey, 1995; Medley & Horne, 2005) a predominate focus on 'hands on skills' (Thornton, 1997) means that developing and refining communication is often not afforded the same priority. The aim of experiential learning in relation to oral and written clinical communication is to assist students to develop mental representations which can be used in subsequent experiences through the process of pattern recognition and development of skills of

cognitive inference. Clinical simulation which role models a particular communication behavior and cultural expectation provides rich experiential learning opportunities and supports the aims of cognitive learning theory in its promotion of student interaction with clinical cases, use of prior knowledge, and the development and consolidation of mental representations (Johnson, et al., 1999). Exposing students to examples of clinical communication has the potential to prepare students for interactions with patients and nursing and other health professionals. Feedback to students at the completion of experiential learning activities is essential to enhance learning (Issenberg, et al., 2005). Feedback aids in error correction, reflection, prioritising interventions (Lassater, 2004; Issenberg, et al., 2005), verbalization of actions, articulation of rationale for actions and correcting knowledge and communication skills (Lasater, 2004). Immediate rather than delayed feedback can assist students in reconstruction, analysis and critique of their actions (Miller, et al., 2000; Lasater, 2004).

BACKGROUND TO CCP DEVELOPMENT

Flinders University of Adelaide, South Australia, like other Australian Universities, increased their enrolment of international nursing students (Armstrong 2004). Although international students enter Australian Universities with an understanding of both written and verbal English language they still experience difficulty in interpreting and using abbreviations and understanding medical terminology and its application in the health care environment (Shakya & Horsfall 2000; Hofmeyer & Cecchin 2001; Sanner et al 2002; Duffy et al 2003; Gudhe 2003). Australian students also experience difficulty in identifying the meaning of abbreviations and pronouncing diagnoses and medications. Researchers, academics and health care professionals working with international students recommend Universities teach medical terminology, clarify abbreviations and focus on pronunciation (Davis 2003; Grant & Letzring 2003; Koskinen & Tossavainen 2003; Omeri et al 2003). The 2005 review of the Bachelor of Nursing at Flinders University Adelaide also demonstrated international students required more accessible English for Nursing practice support when in the clinical area. At the present time both academics and clinical staff at many different venues spend considerable time assisting nursing students to develop communication skills appropriate to the clinical area. Students, academics and clinicians are often isolated from support when in the clinical area.

The Clinical Communication Program incorporates the development of an interactive learning program with multiple components to assist in the preparation of nursing students for health care communication in Australian clinical nursing environments. The program is virtual and accessible by students, academics and clinical facilitators in any location (university, home or clinical setting). It provides a leading edge teaching and learning product developed in consultation with the staff from the International English Language Institute (IELI), academic and clinical staff and supported by experts in graphics and Web development. The program is interactive, clinically based, incorporates actual practice scenarios and combines visual and phonic elements.

The CCP is designed to increase the accessibility of resources for teaching and learning in clinical, academic and home settings. The CCP innovation will be trailed and evaluated for its effectiveness by students undertaking placement, academics and clinicians at the end of the first 12 months of it implementation.

LEARNING OUTCOMES

The CPP will:

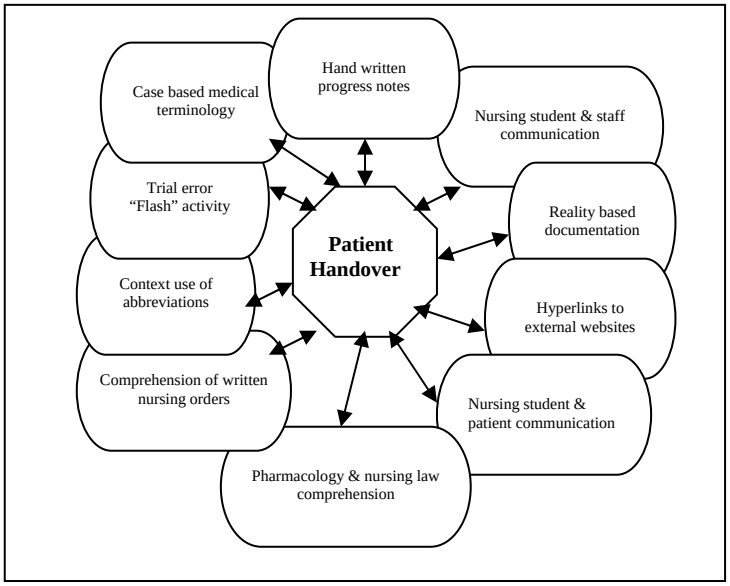
- Provide a vehicle for student development of language skills in the clinical and academic environment
- Assist students in understanding the processes used in clinical communication
- Provide resources accessible in any location (with internet) for clinical and academic staff to assist students in the development of their professional language
- Increase students' confidence in their clinical performance and interaction with staff and patients
- Increase clinicians understand in of the CCP's philosophy and strategies so they can respond to international students with approaches congruent with the clinical communication needs of international students.

DEVELOPMENT OF CCP

The project was funded by a $10,000 Vice Chancellor's teaching and leaning innovation grant. The project team examined common communication difficulties experienced by students in the clinical environment to identify elements to be covered in the CCP. The issues identified below have been addressed in the CCP (Figure 1).

- Lack of understanding of RN language used when handing over their patients from one –shift to another;
- Lack of familiarity with documentation and inability to accurately complete such documentation;
- Difficulty in interpreting health professional and patient's speech due to different accents and intonation of language and non-verbal cues;
- Inability to decipher the multitude of abbreviations used in the clinical setting
- Understanding nursing and medical notes
- Writing nursing notes
- Interpreting pattern and trend in patient data
- Managing interactions with patients, nursing staff and other health professionals
- Transferring theory of nursing law into practice in pharmaceutical administration.

FIGURE 1
Identifying components of the CPP



SCRIPT DEVELOPMENT

Nursing staff handing over their allocated patients from the morning to the afternoon shift formed the basis for script development. The 16 patient handovers were collaboratively with clinicians and academics. This was to ensure clinical accuracy while at the same time meeting the undergraduate clinical practice adult medical and surgical curriculum outcomes for all three years of the program. Each patient handover was scripted to include language and abbreviations as they would occur at the time of shift handover between the morning and afternoon nursing staff. To follow is an example of one patient script:

> Bed 1 Mr Michael Conley 72 yrs of age admitted 3 days ago from home following ½ hour of heavy substernal chest pain. Angiogram arranged from ED where two stents were positioned in the LAD. IV GTN and IV Heparin continued for 24 hours. Now on SC Heparin BD and Warfarin daily based on daily INR due at 1800. Atenolol and Lisinopril are due at 1800 from ward stock but his own have been ordered following the round at 1100 today. Temp 36, P90, Sinus Rhythm, Resps 18, B/P 140/90. Now on day 3 of Cardiac Mobilisation regime, Seen by Cardiac rehab nurse today and for D/C tomorrow. Ward clerk will need to notify transport as he requires a community car to take him home to McLaren Vale.

The entire handover of 16 patients lasts for 24 minutes also reflecting the reality of shift handover. The voices of the registered nurses in the handover included male and female in addition to a variety of accents including German, Scottish and Australian. Each nurse handsover to the camera so that students can study the shape of the mouth as well as hearing the verbal handover and following the PDF of the verbatim handover including abbreviations, slang and colloquialisms.

ACTIVITY DEVELOPMENT AROUND PATIENT HANDOVER/SCENARIO

In the development of the CCP activities to promote pattern recognition it was ensured that they contained essential features of a particular clinical situation (Nosofsky, & Palmieri, 1997) and where possible incorporated visual, verbal and written cues (Norman, et al., 1996). The incorporation of clinically based exemplars possessed the potential to enhance experiential learning, skill acquisition, problem solving abilities, team work (Alinier, et al., 2006), integrate learning (Lasater, 2004) and develop critical thinking skills (Feingold, et al 2004; Medley & Horne, 2005). The team followed the VARK (Visual (V), Aural(A), Read/Write (R) and Kinesthetic (K)) learning style preference adapted by Fleming (2001) to guide the development of activities used throughout the CCP. Strategies were developed to integrate students learning and facilitate transfer of learning between theory and practice from the university to the clinical environment. The handovers were authentic and delivered in a format representing and providing familiarity with the clinical setting. Students can access the CCP at any time promoting self direction. This aspect is particularly useful for students with English as their second language as they are able to replay the handover video when language cues are missed. Development of activities was contextual using patient data from the handover such as nursing interventions, medication orders, pain scale data, fluid balance trends. All of these activities required the students to engage with the clinical documentation and formulate reports on their findings from the data. The activities were developed with a strong emphasis on what is currently required of students whilst on placement in addition to what will be required when employed. Each activity provides students with correct answers and in some cases hyperlinks to additional information supporting the answers (O'Conner, et al., 1999; Miller, et al., 2000).

TECHNOLOGY REQUIREMENTS

To ensure the CCP study aid was accessible to students and the wider community it was developed to be delivered at various download speeds. Although Flash video is recommended, high resolution video (480X360), low resolution video (320X240) and mp3 audio and images are also selectable options for viewing. The website was tested on Microsoft Internet Explorer and Mozilla Firefox browsers. The installation of JavaScript, the enabling of cookies and pop-ups or scripting, and adjusting security settings must be achieved for scripts to run and the browser must have the add-on (or plugin) enabled to play sound. Adobe Flash Player is recommended to play the videos but these can be played using the Apple QuickTime add-on. Adobe Flash Player (formerly Macromedia Flash Player, minimum version 6) and Acrobat PDF Reader are required in addition to a web browser (e.g. Internet Explorer, Firefox) to enable full use of the site.

CONCLUSION

Development of the CCP was expensive in the use of time and human resources. Indeed each hour of final content took between 30 and 200 hours of development time (Macleod, 2000). The developers are however convinced that this resource and its accessibility to students are worth this investment. The CCP is currently being trailed across the three years of the undergraduate pre-registration program. Preliminary findings from students indicates that the third year students would have accessed this

study aid back at the beginning of their degree as they can see the benefit of the contextual language and gaining familiarity with health care documentation. Industry partners are very encouraging about the study aid and are accessing the program in the public domain to provide language support for newly employed registered nurses orientating to nursing in Australian. Industry partners from midwifery and mental health are keen to discuss the development of a similar program to assist in the integration of students into their specialist working environments.

REFERENCES

Alinier, G., Hunt, B., Gordon, R. & Harwood, C. (2006). Effectiveness of intermediate fidelity simulation training technology in undergraduate nursing education. *Issues and Innovation in Nursing Education, 54(3):359-369.*

Armstrong, F., 2004 The price of graduation *Australian Nursing Journal* 11(7):22-25

Davis C 2003 Helping international students adjust *Nursing 2003* 33(6):86-88

Duffy M, Farmer S, Ravert P & Huttinen L 2003 Institutional issues in the implementation of an International Student Exchange Program *Journal of Nursing Education* 42)9):399-405

Feingold, C.E, Calaluce, M. & Kallen, M.A. (2004). Computerized Patient Model and Simulated Clinical Experiences: Evaluation With Baccalaureate Nursing Students. *Journal of Nursing Education*. 43(4):153 – 163.

Fleming, N. D. (2001). *Teaching and learning styles: VARK strategies*.

Christchurch, New Zealand.

Grant E & Letzring T 2003 Status of cultural competency in nursing education: A literature review *Journal of Multicultural Nursing* and Health 9(2): 6-13

Grant E & McKenna L 2003 International clinical placements for undergraduate students *Journal of Clinical Nursing* 12:529-535

Gudhe J 2003 English as a second language (ESL) nursing students: Strategies for building verbal and written language skills. *Journal of Cultural Diversity* 10(4):113-117

Hofmeyer A & Cecchin M 2001 Enactment of virtue ethics: Collaboration between nurse academics and international students in questionnaire design *Australian Journal of Advanced Nursing* 18(3):8-13

Issenberg, B.S., McGaghie, W.C., Petrusa, E.R., Gordon, D.L., & Scalese, R.J. (2005). Features and uses of high–fidelity medical simulations that lead to effective learning: a BEME systematic review. *Medical Teacher,* 27(1):10 – 28.

Johnson, J., Zerwic, J; & Theis, S. (1999). The Clinical simulation laboratory. *Nurse Educator,* 24(5):37 – 41.

Koskinen L & Tossavainen K 2003 Relationships with undergraduate nursing exchange students: A tutor perspective *Journal of Advanced Nursing* 41(5):499-508

Lasater, K. (2007). High-fidelity simulation and the development of clinical judgement: Students' experiences. *Journal of Nursing Education,* 46 (6):269-276.

Macleod, D. (2000). Clever business. *Guardian Education* Tuesday 28 November 2000.

http://www.guardian.co.uk/education/2000/nov/28/highereducation.theguardian Accessed 30 July 2008.

Medley, C.F. & Horne, C. (2005). Using Simulation Technology for Undergraduate Nursing Education. *Journal of Nursing Education.* 44(1): 31 - 34.

Miller, H., Nichols, E., & Beeken, J. (2000). Comparing videotaped and faculty present return demonstrations of clinical skills. *Journal of Nursing Education*, 39:237-239.

Norman, G.R., Brooks, L.R., Regehr, G., Marriott, J., & Shali, V. (1996). Impact of feature interpretation on medical student diagnostic performance. *Academic Medicine*, 71(S1):108-109.

Nosofsky, R.M., & Palmieri, T.J. (1997). An exemplar based random walk model of speeded classification. *Psychological Review*, 104:266-300.

Omeri A, Malcolm P, Ahern M & Wellington B 2003 Meeting the challenges of cultural diversity in the academic setting *Nurse Education in Practice* 3:5-22

Rakoczy, M., & Movey, S. (1995). Learning style of nursing students: A 3-year cohort longitudinal study. *Journal of professional Nursing*, 11(3):170-184.

Sanner S Wilson A & Samson L 2002 The experience of international nursing students in a baccalaureate nursing program *Journal of Professional Nursing* 18(4):206-213

Shakya A & Horsfall J 2000 ESL undergraduate nursing students in Australia: Some experiences *Nursing and Health Sciences* 2:163-171

Thornton, T. (1997). Attitudes towards the relevance of biological, behavioural and social sciences in nursing education. *Journal of Advanced Nursing*, 26(1):180 – 186.